

QSAN XCubeSAN Series Configuration Worksheet

Use this worksheet to collect and record information for configuring the QSAN XCubeSAN series storage system. This worksheet should be used in conjunction with the [XCubeSAN QIG \(Quick Installation Guide\)](#). Refer to the chapter 2, Prepare for Installation in the [XCubeSAN SANOS 4.0 User's Manual](#) for an installation overview and additional chapters for setting up the system. The values in grey color are examples for your configuration reference.

1. Initial Configuration	
Item	Value
System Name: The maximum length of the system name is 32 characters. Valid characters are [A~Z a~z 0~9 -_].	XCubeSAN
Admin Password: The maximum length of the password is 12 characters. Valid characters are [A~Z a~z 0~9 ~!@#\$%^&* _-+=`\ (){}[];:'"<>.,?/].	1234
NTP Server: FQDN (Fully Qualified Domain Name) or IP address of NTP (Network Time Protocol) server.	pool.ntp.org
Time Zone: Depending on your location.	(GM +08:00) Taipei
2. Management Port Setting	
Item	Value
Management Port IP Address on Controller 1: IP address, subnet mask, and gateway of the management port on controller 1.	IP: 192.168.1.234 SM: 255.255.255.0 GW: 192.168.1.254
DNS Server Address: IP address of DNS (Domain Name System) server.	8.8.8.8
Management Port IP Address on Controller 2: (optional) IP address, subnet mask, and gateway of the management port on controller 2.	IP: 192.168.1.235 SM: 255.255.255.0 GW: 192.168.1.254
3. Notification Setting	
Item	Value
Email-from Address: Email-from address to send event notification.	admin@company.com

Email-to Addresses: Email-to addresses to receive event notification	Email-to Address 1: user1@company.com Email-to Address 2: user2@company.com Email-to Address 3: user3@company.com
SMTP Server: Network name or IP address of SMTP (Simple Mail Transfer Protocol) server.	smtp.company.com
Syslog Server: (optional) FQDN or IP address of syslog server.	syslog.company.com
SNMP Trap Addresses: (optional) FQDNs or IP addresses of SNMP (Simple Network Management Protocol) trap.	SNMP Trap Address 1: snmp1.company.com SNMP Trap Address 2: snmp2.company.com SNMP Trap Address 3: snmp3.company.com

4. iSCSI Port Configuration

Item		Value		
Onboard iSCSI Port IP Addresses: IP address, subnet mask, and gateway of the iSCSI ports. <ul style="list-style-type: none"> Onboard 2 x 10GBASE-T iSCSI (RJ45) ports 		/		
Controller 1	Onboard LAN1	Onboard LAN2		
IP Address	10.10.1.1	10.10.2.1		
Subnet Mask	255.255.255.0	255.255.255.0		
Gateway	10.10.1.254	10.10.2.254		
Controller 2	Onboard LAN1	Onboard LAN2		
IP Address	10.10.3.1	10.10.4.1		
Subnet Mask	255.255.255.0	255.255.255.0		
Gateway	10.10.3.254	10.10.4.254		
Slot 1 iSCSI Port IP Addresses: (optional) IP address, subnet mask, and gateway of the iSCSI ports. <ul style="list-style-type: none"> 4-port 10GbE iSCSI Host Card (SFP+) 2-port 1GBASE-T iSCSI Host Card (RJ45) 4-port 1GBASE-T iSCSI Host Card (RJ45) 		/		
Controller 1	Slot 1 LAN1	Slot 1 LAN2	Slot 1 LAN3	Slot 1 LAN4
IP Address	10.10.11.1			

Subnet Mask	255.255.255.0			
Gateway	10.10.11.254			
Controller 2	Slot 1 LAN1	Slot 1 LAN2	Slot 1 LAN3	Slot 1 LAN4
IP Address	10.10.21.1			
Subnet Mask	255.255.255.0			
Gateway	10.10.21.254			
Slot 2 iSCSI Port IP Addresses: (optional)				
IP address, subnet mask, and gateway of the iSCSI ports.				
<ul style="list-style-type: none"> • 4-port 10GbE iSCSI Host Card (SFP+) • 2-port 1GBASE-T iSCSI Host Card (RJ45) • 4-port 1GBASE-T iSCSI Host Card (RJ45) 				
Controller 1	Slot 2 LAN1	Slot 2 LAN2	Slot 2 LAN3	Slot 2 LAN4
IP Address	10.10.31.1			
Subnet Mask	255.255.255.0			
Gateway	10.10.31.254			
Controller 2	Slot 2 LAN1	Slot 2 LAN2	Slot 2 LAN3	Slot 2 LAN4
IP Address	10.10.41.1			
Subnet Mask	255.255.255.0			
Gateway	10.10.41.254			
Entity Name:			lqn.2004-08.com.qsan	
The entity name is for a device or gateway that is accessible from the network. The maximum length of the entity name is 200 characters. Valid characters are [a~z 0~9 -.:].				
iSNS IP Address: (optional)			10.1.1.1	
IP address of iSNS (Internet Storage Name Server) server.				
CHAP Username: (optional)			chap1	
CHAP (Challenge-Handshake Authentication Protocol) username. The maximum length of the username is 223 characters. Valid characters are [A~Z a~z 0~9 ~!@#%&*~_+ = (){}[];:<>./?].				
CHAP Password: (optional)			123456789012	
CHAP password. The length of the password is between 12 to 16 characters. Valid characters are [A~Z a~z 0~9 ~!@#%&*~_+ = \(){}[];:"'<>./?].				
Mutual CHAP Username: (optional)			mutualchap1	
CHAP username. The maximum length of the username is 223 characters. Valid characters are [A~Z a~z 0~9 ~!@#%&*~_+ = (){}[];:<>./?].				

Mutual CHAP Password: (optional) CHAP password. The length of the password is between 12 to 16 characters. Valid characters are [A~Z a~z 0~9 ~!@#\$\$%^&*~_+=`\ ()\{\}[]:;'"<>.,?/].	123456789012
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5. Fibre Channel Port Configuration

Item	Value
Slot 1 Fibre Channel: (optional) Link speed and topology of the fibre channel ports. Topology support: FC-AL, point-to-point, Fabric (16Gb Fibre Channel only supports Point-to-Point topology) <ul style="list-style-type: none"> 4-port 16Gb Fibre Channel Host Card (SFP+) 2-port 16Gb Fibre Channel Host Card (SFP+) 	

Controller 1	Slot 1 FC1	Slot 1 FC2	Slot 1 FC3	Slot 1 FC4
Link Speed	Auto			
Topology	Point-to-Point			
Controller 2	Slot 1 FC1	Slot 1 FC2	Slot 1 FC3	Slot 1 FC4
Link Speed	Auto			
Topology	Point-to-Point			

6. Pool Configuration

Item	Value
Pool Type: Thick Provisioning, Thin Provisioning, or Auto Tiering (Thin Provisioning Enabled).	Auto Tiering
Pool Name: The maximum length of the pool name is 16 characters. Valid characters are [A~Z a~z 0~9 -_<>].	PL1
Disks: Disk type, disk quantity, and the capacity.	SSD: 4x 100GB SAS: 4x 600GB NL-SAS: 4x 4TB
RAID Level: RAID level 0, 1, 3, 5, 6, 0+1, 10, 30, 50, 60, and N-way mirror	RAID 5
Raw Capacity: Sum of disk capacity.	18.8TB (= 100GB x 4 + 600GB x 4 + 4TB x 4)
Estimate Capacity: Estimate capacity according to the RAID level.	14.1TB (= 100GB x 3 + 600GB x 3 + 4TB x 3)

7. Volume Configuration

Item	Value
Volume Name: The maximum length of the volume name is 32 characters. Valid characters are [A~Z a~z 0~9 -_<>].	V1-PL1
Capacity: Required capacity of the volume.	8TB
Volume Type: RAID Volume or Backup Volume	RAID Volume
8. LUN Mapping Configuration	
Item	Value
Protocol: iSCSI or FCP.	iSCSI
Volume Name: Select one of created volumes.	V1-PL1
Allowed Hosts: iSCSI IQN or Fibre Channel WWNN for access control. Wildcard (*) for access by all hosts.	*
Target: iSCSI Target or Fibre Channel Target	0
LUN: Support LUN (Logical Unit Number) from 0 to 255.	LUN 0
Permission: Read-only or Read-write.	Read-write
9. SSD Cache Configuration	
Item	Value
SSD Cache Pool Name: The maximum length of the pool name is 16 characters. Valid characters are [A~Z a~z 0~9 -_<>].	SCPL1
Cache Type: Read Cache (NRAID+) or Read-write Cache (RAID 1 or NRAID 1+).	Read Cache
I/O Type: Database, File System, or Web Service.	Database
SSDs: SSD quantity and the capacity.	SSD: 2x 400GB
Raw Capacity: Sum of disk capacity.	800GB

10. Snapshot Configuration		
Item	Value	
Volume Name: Select one of created volumes.	V1-PL1	
Snapshot Space: Reserved snapshot space for the volume.	1.6TB	
Snapshot Name: The maximum length of the snapshot name is 32 characters. Valid characters are [A~Z a~z 0~9 -_<>].	Snap-V1-PL1	
Schedule Snapshots: (optional) Define the cycle of snapshots.	Daily 00:00	
11. Local Clone Configuration		
Item	Value	
Source Volume Name: Select one of created volume for source.	V1-PL1	
Source Volume Capacity: Check the capacity of source volume.	8TB	
Target Volume Name: Select one of created volume for target.	T1-PL1	
Target Volume Capacity: Check the capacity of target volume.	8TB	
Schedule Local Clones: (optional) Define the cycle of local clones.	Daily 01:00	
12. Remote Replication Configuration		
Item	Value	
Source Volume Name: Select one of created volume for source.	V1-PL1	
Source Volume Capacity: Check the capacity of source volume.	8TB	
Source iSCSI Port: iSCSI port of source unit. It can be auto or dedicated iSCSI port.	Auto	
Target iSCSI Port IP Addresses: iSCSI port IP addresses of target unit.		
Target	Controller 1	Controller 2 (optional)
IP Address	10.10.100.1	10.10.101.1
Target CHAP Username: (optional)		chap2

CHAP username. The maximum length of the username is 223 characters. Valid characters are [A~Z a~z 0~9 ~!@#%^&* _+= (){}[];:<>./].	
Target CHAP Password: (optional) CHAP password. The length of the password is between 12 to 16 characters. Valid characters are [A~Z a~z 0~9 ~!@#%\$^&* _+=`\\(){}[];:"'<>./].	123456789012
Target Volume Name: Select one of created volume for target.	RT1-PL1
Target Volume Capacity: Check the capacity of target volume.	8TB
Schedule Remote Replications: (optional) Define the cycle of remote replications.	Daily 02:00
Traffic Shaping for Peak Hour: (optional) Limit the transfer rate at peak hour.	100MB
Traffic Shaping for Off-peak Hour: (optional) Limit the transfer rate at off-peak hour.	500MB
Off-peak Hour: (optional) Define the off-peak hours.	Mon. ~ Fri. PM10:00 ~ AM06:59 Sat. ~ Sun. AM00:00 ~ PM23:59

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